

IN THE CLAIMS

1. (Currently Amended) A method of forming an encapsulated fiber batt comprising:

conveying a fiber batt in a first direction, the fiber batt having a first and a second major surfaces surface and two minor surfaces, the first and second major surfaces having a substantially horizontal orientation;

passing the fiber batt past a two or more foam application assembly assemblies, each the foam application assembly being arranged and configured to form deposit a polymeric foam on at least one a separate surface of the fiber batt; and

curing the polymeric foam foams to form a foam layer on each said separate surface; wherein the polymeric foam deposited on each said separate surface of the fiber batt may be the same as or different from each other.

2. (Currently Amended) A method of forming an encapsulated fiber batt according to claim 1, wherein:

at least one of the polymeric foam foams is applied to the fiber batt as a foaming mixture, the foaming mixture expanding substantially after being applied to the fiber batt.

3. (Original) A method of forming an encapsulated fiber batt according to claim 2, wherein:

the foaming mixture increases in volume by at least 200% after application to the fiber batt.

4. (Currently Amended) A method of forming an encapsulated fiber batt according to claim 1, wherein:

at least one of the polymeric-foam foams is applied to the fiber batt as a foam layer, the foam layer exhibiting only minor expansion after being applied to the fiber batt.

5. (Original) A method of forming an encapsulated fiber batt according to claim 4, wherein:

the foam layer increases in volume by no more than 20% after application to the fiber batt.

6. (Currently Amended) A method of forming an encapsulated fiber batt according to claim 1, wherein:

the polymeric-foam includes foams include at least one polymer selected from a group consisting of water soluble polymers, water soluble prepolymers, water emulsifiable emulsifiable polymers, water emulsifiable prepolymers, and water dispersible polymers, and water dispersible prepolymers.

7. (Currently Amended) A method of forming an encapsulated fiber batt according to claim 6, wherein:

the polymeric-foam includes foams include at least one polymer selected from a group consisting of phenolic binders, urea formaldehyde binders, urea extended phenolic binders, polycarboxylic based binders, styrene butadiene rubbers, natural rubbers, polyvinyl chlorides

(PVC), polyethylenes (PE), polypropylenes (PP), poly(ethylene-maleic acid) co-polymers, poly(styrene-maleic acid) co-polymers, polyvinyl alcohols (PVA), ethylene/vinyl acetate (EVA), ethylene-propylene copolymers, polyesters, polyethylene terephthalates (PET), nylon polyacrylic acids, polyvinyl acetates, and salts thereof.

8. (Original) A method of forming an encapsulated fiber batt according to claim 1, wherein:

the polymeric foam is deposited on the first major surface and both minor surfaces.

9. (Original) A method of forming an encapsulated fiber batt according to claim 1, wherein:

the polymeric foam is deposited on all exposed surfaces of the fiber batt.

10. - 14. (Canceled)

15. (Currently Amended) A method of forming an encapsulated fiber batt according to claim 1, wherein:

at least one of the polymeric foam foams is applied to the fiber batt at a rate measured in mass per batt area, the rate being between about 1 g/m² and 200 g/m².

16. (Currently Amended) A method of forming an encapsulated fiber batt according to claim 15, wherein:

the a first polymeric foam is applied to a first surface of the fiber batt at a first rate R_1 measured in mass per batt area, the first rate being between about 1 g/m² and 200 g/m²; and

the a second polymeric foam is applied to a second surface of the fiber batt at a second rate R_2 measured in mass per batt area, the ~~first~~ second rate being between about 1 g/m² and 200 g/m², said first and second polymeric foams being the same as or different from each other;

_____ wherein R_1 and R_2 differ by at least 15%.

17. (Currently Amended) A method of forming an encapsulated fiber batt according to claim 15, wherein:

a first polymeric foam is applied to a first surface of the fiber batt at a first rate R_1 measured in mass per batt area, the first rate being between about 1 g/m² and 200 g/m²; and

a second polymeric foam is applied to a second surface of the fiber batt at a second rate R_2 measured in mass per batt area, the first rate being between about 1 g/m² and 200 g/m², said first and second polymeric foams being the same as or different from each other.

18. (Original) A method of forming an encapsulated fiber batt according to claim 17, wherein:

the first and second polymeric foams include different primary polymers.

19. (Original) A method of forming an encapsulated fiber batt according to claim 17, wherein:

the first and second polymeric foams include first and second concentrations of the same primary polymer, the first and second concentrations differing by at least 10%.

20. (Currently Amended) A method of forming an encapsulated fiber batt according to claim 1, wherein:

at least one of the polymeric foam has foams has a blow ratio of between about 4 and 50.

21. (Currently Amended) A method of forming an encapsulated fiber batt according to claim 17, wherein:

the first polymeric foam has a first blow ratio BR₁ of between about 4 and 50; and

the second polymeric foam has a second blow ratio BR₂ of between about 4 and 50;

wherein BR₁ and BR₂ differ by at least about 10%.

22. – 31. (Canceled)

32. (New) A method of forming an encapsulated fiber batt according to claim 1, wherein the fiber batt is conveyed past a first foam application assembly depositing a first polymeric foam and a second foam application assembly depositing a second polymeric foam, said first and second polymeric foams including different primary polymers.

33. (New) The method of forming an encapsulated fiber batt according to claim 32, wherein the first polymeric foam forms a first foam layer having a first thickness and the second polymeric foam forms a second foam layer having a second thickness, said first and second thicknesses being the same as or different from each other.

34. (New) A method of forming an encapsulated fiber batt comprising:
passing a fiber batt in a first direction past a foam application assembly, the foam application assembly being arranged and configured to form a polymeric foam on at least one surface of the fiber batt, the fiber batt having first and second major surfaces in a substantially horizontal orientation and two minor surfaces; and
curing the polymeric foam to form a foam layer;
wherein a first polymeric foam is applied to a first surface of the fiber batt at a first rate R_1 measured in mass per batt area, the first rate being between about 1 g/m² and 200 g/m² and a second polymeric foam is applied to a second surface of the fiber batt at a second rate R_2 measured in mass per batt area, the second rate being between about 1 g/m² and 200 g/m², said R_1 and R_2 differing by at least 15%.

35. (New) A method of forming an encapsulated fiber batt according to claim 1, wherein:

at least one of the first and second polymeric foams is applied to the fiber batt as a foaming mixture, the foaming mixture expanding substantially after being applied to the fiber batt.

36. (New) A method of forming an encapsulated fiber batt according to claim 35,
wherein:

the foaming mixture increases in volume by at least 200% after application to the
fiber batt.

37. (New) A method of forming an encapsulated fiber batt according to claim 34,
wherein:

at least one of the polymeric foams is applied to the fiber batt as a foam layer, the
foam layer exhibiting only minor expansion after being applied to the fiber batt.

38. (New) A method of forming an encapsulated fiber batt according to claim 37,
wherein:

the foam layer increases in volume by no more than 20% after application to the fiber
batt.

39. (New) A method of forming an encapsulated fiber batt according to claim 34,
wherein:

the first and second polymeric foams include different primary polymers.

40. (New) A method of forming an encapsulated fiber batt according to claim 34,

wherein:

the first and second polymeric foams include first and second concentrations of the same primary polymer, the first and second concentrations differing by at least 10%.

41. (New) A method of forming an encapsulated fiber batt according to claim 1,

wherein:

at least one of the polymeric foams has a blow ratio of between about 4 and 50.

42. (New) A method of forming an encapsulated fiber batt comprising:

passing a fiber batt in a first direction past a foam application assembly, the foam application assembly being arranged and configured to form a polymeric foam on at least one surface of the fiber batt, the fiber batt having first and second major surfaces in a substantially horizontal orientation and two minor surfaces; and

curing the polymeric foam to form a foam layer;

wherein a first polymeric foam is applied to a first surface of the fiber batt, the first polymeric foam having a first blow ratio BR_1 of between about 4 and 50;

wherein a second polymeric foam is applied to a second surface of the fiber batt, the second polymeric foam having a second blow ratio BR_2 of between about 4 and 50; and

wherein BR_1 and BR_2 differ by at least about 10%.

43. (New) A method of forming an encapsulated fiber batt according to claim 42,
wherein:

the first and second polymeric foams include different primary polymers.

44. (New) A method of forming an encapsulated fiber batt according to claim 42,
wherein:

the first and second polymeric foams include first and second concentrations of the same primary polymer, the first and second concentrations differing by at least 10%.

45. (New) A method of forming an encapsulated fiber batt according to claim 42,
wherein at least one of the first and second polymeric foams is applied to the fiber batt at a rate measured in mass per batt area, the rate being between about 1 g/m² and 200 g/m².

46. (New) A method of forming an encapsulated fiber batt according to claim 42,
wherein the first polymeric foam is applied to a first surface of the fiber batt at a first rate R₁ measured in mass per batt area, the first rate being between about 1 g/m² and 200 g/m² and the second polymeric foam is applied to a second surface of the fiber batt at a second rate R₂ measured in mass per batt area, the second rate being between about 1 g/m² and 200 g/m², said R₁ and R₂ differing by at least 15%.